HP Z220 Workstation

More power, less energy, still affordable.





Our most affordable, no-compromise workstations.

The HP Z220 Series delivers workstation performance and energy efficiency at prices you'd expect from a desktop PC. You'll get the performance you need with next-generation Intel® Xeon® and Intel® Core™ processors, four integrated USB 3.0 ports, new professional graphics options, and enterprise-class memory technologies.

Choose an expansive Convertible Minitower (CMT) or a compact Small Form Factor (SFF) design that's 65% smaller—perfect for tight spaces. Either one fits your workspace and your work style.

Professional work demands professional graphics.

Experience a cost-effective graphics boost with the enhanced next-generation Intel® HD Graphics. For even greater performance, choose the latest PCIe Gen3 professional graphics cards from NVIDIA and AMD as they become available, taking advantage of the high-performance PCIe Gen3 x16 slot.

High performance. No sweat.

Increase performance and reduce energy consumption with next-generation 22nm processors, including the Intel® Xeon® processor E3-1200v2 family (with Intel® HD Graphics P4000 on selected processors) and 3rd generation Intel® Core™ processors. Unleash your creativity without thinking twice about performance.

Get going at a moment's notice with the Intel® Smart Response Technology® (SRT) SSD option that gives you faster boot up times and application responsiveness. Because no one should ever have to wait.

More Possibilities. More Productivity.

Connect to external storage devices and transfer data at blazing fast speeds using integrated USB 3.0.

Boost performance on memory intensive applications with up to 32GB of 1600MHz DDR3 memory⁵ and enjoy the confidence of running even sophisticated models without slowing you down.







HP 7220 CMT

National Properties Propert		HP Z220 CMT				H	P Z220 SF	F		
System	Form Factor									
Processors Processor Processor Processor Processor Processors Processors Processors Processors Processors Processors Processors Processors Processors Processor Processors Processor Proce		HP Linux Installer Kit SUSE Linux Enterprise Desktop 11 (90 day license)								
Processors 1-3-1-32 Intel Pentium processor 64-30 2.80 - 3 MB 1066 MHz 2 N N N 2000 Intel Core*** 19-120 processor 3.30 - 3 MB 1000 MHz 2 N N N 2500 Intel Core*** 19-220 processor 3.40 - 3 MB 1000 MHz 2 N N N 2500 Intel Core*** 19-220 processor 3.40 - 3 MB 1000 MHz 2 N N N 2500 Intel Core*** 19-320 processor 3.40 - 3 MB 1000 MHz 4 N N Y 2500 Intel Core*** 19-370 processor 3.40 3.80 6 MB 1000 MHz 4 N N Y 2500 Intel Core*** 19-370 processor 3.40 3.80 6 MB 1000 MHz 4 N N Y 2500 Intel Core*** 19-370 processor 3.40 3.80 8 MB 1000 MHz 4 N N Y 2500 Intel Core*** 19-370 processor 3.40 3.80 8 MB 1000 MHz 4 N N Y N N N N 1000 Intel Xeor** processor 3-1250/2 3.30 3.70 8 MB 1000 MHz 4 N N Y N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N		Red Hat Enterprise Linux Desktop/Workstation (1 year paper license; no preinstalled OS)								
Intel Core*** 5-220 processor 3.30	Available	Processor	GHz	Max Turbo GHz	Cache	Memory	Cores	Hyper-Threading ⁶	Intel® vPro™ Technology	Intel® HD Graphics
Intel Core 13-2240 processor 3.40	Processors ^{1,2,3}	Intel® Pentium processor G640	2.80	_	3 MB	1066 MHz	2	N	N	2000
Intel Core** -13-2470 processor 3.40		Intel Core™ i3-2120 processor	3.30	_	3 MB	1333 MHz	2	N	N	2000
Intel Core** 6-3470 processor 3.20 3.60 6 MB 1600 MHz 4 N N Y 2500 Intel Core** 1-3570 processor 3.40 3.80 6 MB 1600 MHz 4 N Y Y 2600 Intel Core** 1-3570 processor 3.40 3.90 8 MB 1600 MHz 4 N Y Y P 4000 Intel Keon processor 63-1250v2 3.20 3.60 8 MB 1600 MHz 4 N N Y Y P 4000 Intel Keon processor 63-1260v2 3.40 3.80 8 MB 1600 MHz 4 N N Y Y N NO NO Intel Keon processor 63-1260v2 3.40 3.80 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Keon processor 63-1270v2 3.50 3.80 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Keon processor 63-1270v2 3.50 3.80 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Keon processor 63-1270v2 3.50 3.80 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.50 3.80 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 5 Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 5 Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 5 Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 5 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 5 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 5 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 5 Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4.10 8 MB 1600 MHz 5 Y Y Y Y Y N NO Intel Keon processor 63-1259v2 3.70 4 MB 1600 MHz 5 Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y		Intel Core™ i3-3220 processor	3.30	_	3 MB	1600 MHz	2	N	N	2500
Intel Core** IS-3570 processor 3.40 3.80 6 MB 1600 MHz 4 N Y 2500		Intel Core™ i3-3240 processor	3.40	_	3 MB	1600 MHz	2	N	N	2500
Intel Core*** 77-3770 processor 3.40 3.90 8 M8 1600 MHz		Intel Core™ i5-3470 processor	3.20	3.60	6 MB	1600 MHz	4	N	Υ	2500
Intel Xeon processor E3-1259/2 3.20 3.50 8.88 1 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12409/2 3.40 3.80 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12409/2 3.40 3.80 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12409/2 3.40 3.80 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12709/2 3.50 3.90 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12709/2 3.50 3.90 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12709/2 3.50 3.90 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12809/2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y Y N NO Intel Xeon processor E3-12909/2 3.70 4.10 8 MB 1600 MHz 6 Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y							-		•	
Intel Xeon processor E3-1230v2 3.30 3.70 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1240v2 3.40 3.80 8 MB 1600 MHz 4 Y Y Y P4000 Intel Xeon processor E3-1245v2 3.40 3.80 8 MB 1600 MHz 4 Y Y Y P4000 Intel Xeon processor E3-1250v2 3.50 3.90 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.60 4.00 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y No Intel Xeon processor E3-1280v2 3.70 4.10 8 MB 1600 MHz 4 Y Y Y Y No Intel Xeon processor E3-1280v2 4.70 1.20 4.70							-		•	
Intel Xeon processor E3-1240y2 3.40 3.80 8 MB 1600 MHz 4										
Intel Xeon processor 63-1245V2 3.40 3.80 8 MB 1600 MHz 4							-	•		
Intel Xeon processor E3-1270v2 3.50 3.90 8 MB 1600 MHz 4 Y Y No Intel Xeon processor E3-1280v2 3.60 4.00 8 MB 1600 MHz 4 Y Y No								Y		
Intel Xeon processor E3-1280v2 3.60							•	Y V		
The Name Na									•	
Memory A DIMM slots, up to 32 GB ECC/non-ECC, DDR3 1600 MHz (ECC/non-ECC choice and actual memory speed dependent on processor capability) Drive Controllers Integrated SATA Controller, RAID 0,1 supported: 4 ports 3 Gb/s, 2 ports 6 Gb/s Integrated SATA Controller, RAID 0,1 supported: 2 ports 3 Gb/s, 2 ports 6 Gb/s								•		
Integrated SATA Controller, RAID 0,1 supported: 4 ports 3 Gb/s, 2 ports 6 Gb/s Storage Up to (3) 3.5-inch 7200 rpm SATA drives: 250, 500 GB, 1, 2 TB (6 TB max) Up to (3) 3.5-inch 7200 rpm SATA drives: 250, 500 GB, 1, 17 B (3 TB max) Up to (3) 2.5-inch 10 Krpm SATA drives: 250, 500 GB, 1, 18 (2 TB max) Up to (3) 2.5-inch SATA solid state drives: 128, 160, 256, 300 GB (0.9 TB max) Up to (3) 2.5-inch SATA solid state drives: 128, 160, 256, 300 GB (0.9 TB max) Up to (3) 2.5-inch SATA solid state drives: 128, 160, 256, 300 GB (0.9 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2)	Chipset	·								
Third Controllers and Dive Controllers and Dive Controller, RAID 0,1 supported: 4 ports 3 Gb/s, 2 ports 6 Gb/s Storage by Up to (3) 3.5-inch 7200 rpm SATA drives: 250, 500 GB, 1, 2 TB (6 TB max) Up to (3) 3.5-inch 7200 rpm SATA drives: 250, 500 GB, 1, 17 B (3 TB max) Up to (3) 3.5-inch SATA solid state drives: 128, 160, 256, 300 GB (0.9 TB max) Up to (3) 3.5-inch SATA solid state drives: 128, 160, 256, 300 GB (0.9 TB max) Up to (3) 3.5-inch SATA solid state drives: 128, 160, 256, 300 GB (0.9 TB max) Up to (3) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 256, 300 GB (0.6 TB max) Up to (2) 2.5-inch SATA S50 drives: 128, 160, 25	Memory ^{5,7}	4 DIMM slots, up to 32 GB ECC/non-ECC, DDR3 1600 MHz (ECC/non-ECC choice and actual memory speed dependent on processor canability)								
Storage Up to (3) 3.5-inch 7200 rpm SATA drives: 250, 500 GB, 1, 2 TB (8 TB max) Up to (3) 3.5-inch 10X rpm SATA drives: 250, 500 GB, 1 TB (8 TB max) Up to (3) 3.5-inch 10X rpm SATA drives: 250, 500 GB, 1 TB (8 TB max) Up to (1) 2.5-inch SATA self-encrypting solid state drives 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 160, 256, 300 GB (0.8 TB max) Up to (1) 2.5-inch SATA SATA SD drives: 128, 100 CB state 128										•
Up to (3) 2.5-inch 10K rpim SATA drives: 250, 500 GB, 1 TB (3 TB max) Up to (1) 2.5-inch 10K rpim SATA drives: 250, 300 GB (0.6 TB max) Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB,										
Drive Bays 3 external 5.25-inch bays, 3 internal 3.5-inch HDD bays 1 internal 3.5-inch bay, and 1 shared with external 3.5-inch bay; 1 external 5.25-inc Expansion Slots 1 PCIe Gen3 x16, 1 PCIe Gen2 x4/x16, 1 PCIe Gen2 x4 slot/x8, 2 PCIe Gen2 x1, 2 PCI 1 PCIe Gen3 x16, 1 PCIe Gen2 x4/x16, 2 PCIe Gen2 x1, 1 PCI (all slots are Low Professional 2D: NVIDIA NVS 300, NVIDIA Quadro 410, NVIDIA Quadro 600 Mid-range 3D: AMD FirePro® V3900, NVIDIA Quadro 2000 High-end 3D: AMD FirePro® V3900, NVIDIA Quadro 4000 (AMO** only) Audio High Definition Integrated Realtek ALC221 Audio and integrated speaker; optional Creative Reon 3D PCIe Audio Card; optional HP Thin USB Powered Speakers Network Intel® VPro® Wide November Speakers Ports Front: 2 USB 3.0, 1 USB 2.0, 1 IEEE 1394a (optional with PCIe card), 1 microphone in, 1 headphone out Rear: 2 USB 3.0, 4 USB 2.0, 1 audio in, 1 audio out, 1 serial (optional), 1 parallel (optional), 2 PS/2, RJ-45 (NIC), 1 microphone in, 1 DVI-I single link and 1 DisplayPort (for use with Intel® ALC 2D) opts Input Devices HP PS/2 keyboard, HP USB keyboard, HP USB KCID smart card keyboard, HP PS/2 mouse, HP USB a-button optical mouse, HP USB a-button optical mouse, HP USB spaceExplorer, USB SpaceEx	Storage ²	Up to (3) 2.5-inch 10K rpm SATA drives: 250, 500 GB, 1 TB (3 TB max) Up to (3) 2.5-inch SATA solid state drives: 128, 160, 256, 300 GB (0.9 TB max)					Up to (2) 2.5-inch 10K rpm SATA drives: 250, 300, 500 GB, 1 TB (2 TB max)			
PCIE Gen3 x16, 1 PCIe Gen2 x4/x16, 1 PCIe Gen2 x4/s16, 1 PCIe Gen2 x4/s16, 1 PCIe Gen2 x4/s16, 1 PCIe Gen2 x4/x16, 2 PCIe Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIe Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIe Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIe Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIe Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIe Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIe Gen2 x4/x16, 2 PCIE Gen2 x4, x16, 1 PCIE Gen2 x10, x16, x16, x16, x16, x16, x16, x16, x16	Optical Storage ^{10,11}	DVD-ROM, DVD+/-RW DL Super Multi, HP Blu-ray Writer, HP 22-in-1 Media Card Reader								
Available Graphics¹² Integrated Graphics: Intel* HD Graphics available on select processors as above Professional 2D: NVIDIA NVS 300, NVIDIA NVS 300, NVIDIA VS 300, NVIDIA NVS 300, NVIDIA Quadro 410, NVIDIA Quadro 600 Mid-range 3D: AMD FirePro™ V5900, AMD FirePro™ V5900, NVIDIA Quadro 410, NVIDIA Quadro 600 Mid-range 3D: AMD FirePro™ V7900 (AMD**only), NVIDIA Quadro 4000 (AMO** only) Audio High Definition Integrated Realtek ALC221 Audio and integrated speaker; optional creative Reon 3D PCle Audio Card; optional HP Thin USB Powered Speakers Network Intel 82579 GbE Network Connection Remote Management Internated Realtek ALC221 Audio and integrated speaker, optional creative Reon 3D PCle Audio Card; optional with PCle card), Intel* vPro™ with Intel* AMT 8.0 Front: 2 USB 3.0, 1 USB 2.0, 1 IEEE 1394a (optional with PCle card), Internate 3D SB 2.0, 1 audio in, 1 audio out, 1 serial (optional), 2 PS/2, RJ-45 (NIC), 1 microphone in, 1 DVI-1 single link and 1 DisplayPort (for use with Intel* ID Graphics); optional 2 IEEE 1394b ports (PCle card) Internat: 5 USB 2.0 ports Input Devices HPPS/2 keyboard, HP USB keyboard, HP USB CID smart card keyboard, HP PS/2 mouse, HP USB optical mouse, HP USB 3-button optical mouse, HP USB Isace Fixed Tool (and desktop orientation: 3.95 x 13.3 x 15.0 in (10.0 x 33.8 x 38.1 cm) Power Supply 400-watt 90% efficient power supply 240-watt 90% efficient power supply 400-watt 90% efficie	Drive Bays	3 external 5.25-inch bays, 3 internal 3.5-inch HDD bays					1 internal 3.5-inch bay, and 1 shared with external 3.5-inch bay; 1 external 5.25-inch bay			
Professional 2D: NVIDIA NVS 300, NVIDIA NVS 310 Entry 3D: AMD FirePro™ V3900, AMD FirePro™ V4900, NVIDIA Quadro 410, NVIDIA Quadro 600 Mid-range 3D: AMD FirePro™ V5900, NVIDIA Quadro 2000 High-end 3D: AMD FirePro™ V5900 (AMO™ only), NVIDIA Quadro 4000 (AMO™ only) Audio High Definition Integrated Realtek ALC221 Audio and integrated speaker; optional creative Reon 3D PCIe Audio Card; optional HP Thin USB Powered Speakers Network Intel® 2579 GbE Network Connection Remote Management Pront: 2 USB 3.0, 1 USB 2.0, 1 IEEE 1394a (optional with PCIe card), 1 microphone in, 1 headphone out 1 PSZ, RJ-45 (NIC), 1 microphone in, 1 hudio out, 1 serial (optional), 2 PS/2, RJ-45 (NIC), 1 microphone in, 1 hudio out, 1 serial (optional), 2 PS/2, RJ-45 (NIC), 1 microphone in, 1 DVI-1 single link and 1 DisplayPort (for use with 1 thet IM Graphics); optional 2 IEEE 1394b ports (PCIe card) Internal: 5 USB 2.0 ports Input Devices HP PS/2 keyboard, HP USB keyboard, HP USB CCID smart card keyboard, HP PS/2 mouse, HP USB optical mouse, HP USB 3-button optical mouse, HP USB Isaser mouse, USB SpaceExplorer, US	Expansion Slots	1 PCIe Gen3 x16, 1 PCIe Gen2 x4/x16, 1 PCIe Gen2 x4 slot/x8, 2 PCIe Gen2 x1, 2 PCI 1 PCIe Gen3 x16, 1 PCIe Gen2 x4/x16, 2 PCIe Gen2 x1, 1 PCI (all slots are Low								lots are Low Profile)
Network Intel 82579 GbE Network Connection Remote Management Pront: 2 USB 3.0, 1 USB 2.0, 1 IEEE 1394a (optional with PCIe card), 1 microphone in, 1 headphone out Rear: 2 USB 3.0, 4 USB 2.0, 1 audio in, 1 audio out, 1 serial (optional), 2 PS/2, RJ-45 (NIC), 1 microphone in, 1 DVI-1 single link and 1 DisplayPort (for use with Intel HD Graphics); optional 2 IEEE 1394b ports (PCIe card) linternal: 5 USB 2.0 ports Input Devices HP PS/2 keyboard, HP USB keyboard, HP USB CCID smart card keyboard, HP PS/2 mouse, HP USB optical mouse, HP USB 3-button optical mouse, HP USB laser mouse, USB SpaceExplorer, USB SpaceExplor	Available Graphics ¹²	Professional 2D: NVIDIA NVS 300, NVIDIA NVS 310 Entry 3D: AMD FirePro™ V3900, AMD FirePro™ V4900, NVIDIA Quadro 410, NVIDIA Quadro 600 Mid-range 3D: AMD FirePro™ V5900, NVIDIA Quadro 2000								
Remote Management Intel® VPro™ with Intel® AMT 8.0 Ports Front: 2 USB 3.0, 1 USB 2.0, 1 IEEE 1394a (optional with PCIe card), 1 microphone in, 1 headphone out 2 PS/2, RJ-45 (NIC), 1 microphone in, 1 headphone out 8 Pacar: 2 USB 3.0, 4 USB 2.0, 1 audio in, 1 audio out, 1 serial (optional), 1 parallel (optional), 2 PS/2, RJ-45 (NIC), 1 WGA and 1 DisplayPort (for use with 1 Intel HD Graphics); optional 2 IEEE 1394b ports (PCIe card) Internal: 5 USB 2.0 ports Front: 4 USB 2.0, 1 microphone in, 1 headphone out Rear: 4 USB 2.0, 1 audio in, 1 audio out, 1 standard/1 optional serial port parallel (optional); 2 PS/2, RJ-45 (NIC), 1 WGA and 1 DisplayPort (for use with 1 DG Graphics); optional 2 IEEE 1394b ports (PCIe card) Internal: 4 USB 2.0 ports Input Devices HP PS/2 keyboard, HP USB keyboard, HP USB CCID smart card keyboard, HP PS/2 mouse, HP USB optical mouse, HP USB 3-button optical mouse, HP USB laser mouse, USB SpaceExplorer, USB SpaceExpl	Audio	High Definition Integrated Realtek ALC221 Audio and integrated speaker; optional Creative Reon 3D PCIe Audio Card; optional HP Thin USB Powered Speakers HP Thin USB Powered Speakers								
Front: 2 USB 3.0, 1 USB 2.0, 1 IEEE 1394a (optional with PCIe card), 1 microphone in, 1 headphone out Rear: 2 USB 3.0, 4 USB 2.0, 1 audio in, 1 audio out, 1 serial (optional), 1 parallel (optional), 2 PS/2, RJ-45 (NIC), 1 microphone in, 1 DVI-1 single link and 1 DisplayPort (for use with untel HD Graphics); optional 2 IEEE 1394b ports (PCIe card) Internal: 5 USB 2.0 ports Input Devices HP PS/2 keyboard, HP USB keyboard, HP USB CCID smart card keyboard, HP PS/2 mouse, HP USB optical mouse, HP USB 3-button optical mouse, HP USB laser mouse, USB SpaceExplorer,	Network	Intel 82579 GbE Network Connection								
Rear: 2 USB 3.0, 4 USB 2.0, 1 audio int, 1 standard/1 optional serial port Rear: 2 USB 3.0, 4 USB 2.0, 1 audio int, 1 audio out, 1 standard/1 optional serial port Rear: 2 USB 3.0, 4 USB 2.0, 1 audio int, 1 audio out, 1 standard/1 optional serial port Possible 1 parallel (optional); 2 PS/2, RJ-45 (NIC), 1 WIGR and 1 DisplayPort (for use with Intel HD Graphics); optional 2 IEEE 1394b ports (PCIe card) Internal: 5 USB 2.0 ports Input Devices IMP PS/2 keyboard, HP USB keyboard, HP USB CCID smart card keyboard, HP PS/2 mouse, HP USB optical mouse, HP USB 3-button optical mouse, HP USB laser mouse, USB SpaceExplorer,	Remote Management	Intel® vPro™ with Intel® AMT 8.0								
Dimensions (H x W x D) 17.6 x 7 x 17.9 in (44.76 x 17.78 x 45.43 cm) Standard desktop orientation: 3.95 x 13.3 x 15.0 in (10.0 x 33.8 x 38.1 cm) Power Supply 400-watt 90% efficient power supply 240-watt 90% efficient power supply Compatible Displays (screen size diagonally measured) HP DreamColor LP2480zx Professional Display (24-inch diagonal widescreen), HP ZR30w 30-inch S-IPS LCD Monitor, HP ZR2740w 27-inch LED Backlit IPS Monitor, HP LP2475w 24-inch Widescreen LCD Monitor, HP ZR2240w 21.5-inch LED Backlit IPS Monitor, HP ZR2040w 20-inch LED Backlit IPS Monitor	Ports	1 microphone in, 1 headphone out Rear: 2 USB 3.0, 4 USB 2.0, 1 audio in, 1 audio out, 1 serial (optional), 1 parallel (optional), 2 PS/2, RJ-45 (NIC), 1 microphone in, 1 DVI-I single link and 1 DisplayPort (for use with Intel HD Graphics); optional 2 IEEE 1394b ports (PCIe card)					Rear: 4 USB 3.0, 2 USB 2.0, 1 audio in, 1 audio out, 1 standard/1 optional serial port, 1 parallel (optional); 2 PS/2, RJ-45 (NIC), 1 VGA and 1 DisplayPort (for use with Intel HD Graphics); optional 2 IEEE 1394b ports (PCIe card)			
Power Supply 400-watt 90% efficient power supply 240-watt 90% efficient power supply Compatible Displays (screen size diagonally measured) HP ZR2740w 27-inch LED Backlit IPS Monitor, HP ZR2440w 24-inch LED Backlit IPS Monitor, HP LP2475w 24-inch Widescreen LCD Monitor, HP ZR2240w 20-inch LED Backlit IPS Monitor, HP ZR2040w 20-inch LED Backlit IPS Monitor	Input Devices	HP PS/2 keyboard, HP USB keyboard, HP U	ISB CCID smai	t card keyboard, HP PS/	/2 mouse, HF	USB optical mou	ıse, HP USB	3-button optical mouse,	HP USB laser mouse, USB Space	Explorer, USB SpacePilo
Compatible Displays HP DreamColor LP2480zx Professional Display (24-inch diagonal widescreen), HP ZR30w 30-inch 5-IPS LCD Monitor, (screen size diagonally HP ZR2740w 27-inch LED Backlit IPS Monitor, HP ZR2440w 24-inch LED Backlit IPS Monitor, HP LP2475w 24-inch Widescreen LCD Monitor, HP ZR2240w 21.5-inch LED Backlit IPS Monitor, HP ZR2040w 20-inch LED Backlit IPS Monitor	Dimensions (H x W x D)	17.6 x 7 x 17.9 in (44.76 x 17.78 x 45.	.43 cm)			St	andard de	sktop orientation: 3.9	5 x 13.3 x 15.0 in (10.0 x 33.8	3 x 38.1 cm)
(screen size diagonally HP ZR2740w 27-inch LED Backlit IPS Monitor, HP ZR2440w 24-inch LED Backlit IPS Monitor, HP LP2475w 24-inch Widescreen LCD Monitor, HP ZR2240w 21.5-inch LED Backlit IPS Monitor, HP ZR2040w 20-inch LED Backlit IPS Monitor	Power Supply	400-watt 90% efficient power supply				24	10-watt 90	% efficient power sup	ply	
Marrantul Limited three year Mon Fri O F next hyringer day parts Jahar and 24v7 phone support terms and conditions may year. One year was a similar a smile his colored country.	(screen size diagonally	HP DI HP ZR2740w 27-	inch LED Ba	cklit IPS Monitor, HP Z	.R2440w 24	1-inch LED Bacl	klit IPS Moi	nitor, HP LP2475w 24:	-inch Widescreen LCD Monito	r,
warrancy Limited three-year mon-rn 6-3 next business day, parts, tabor and 24x7 phone support, terms and conditions may vary, one-year warranty obtion available in selected countries.	Warranty ¹³	Limited three-year Mon-Fri 8-5 next	business da	y, parts, labor and 24	1x7 phone s	upport, terms a	and conditi	ons may vary. One-vea	ar warranty option available i	selected countries.

HP Z220 SFF

Screen images courtesy of Autodesk

- HP Z220 CMT only
- After-Market Option
- Multi-Core technologies are designed to improve performance of multithreaded software products and hardware-aware multitasking operating systems and may require appropriate operating system software for full benefits: Not all customers or software applications will necessarily benefit from use of these technologies
- 64-bit computing on Intel architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel* 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. See intel.com/info/em64t for more information.

- Intel's numbering is not a measurement of higher performance.

 Requires a 2nd gen Intel" Corend processor, enabled chipset, Intel Rapid Storage technology software, and a properly configured hybrid drive (HDD + small SSD). Intel[®] Smart Response Technology is sold as an optional feature and is only available on HP's 2012 Workstations, HP EliteBooks and HP UltraBook. Depending on system configuration, your results may vary.

 Each processor supports up to 2 channels of DDR3 memory. To realize full performance at least 1 DIMM must be inserted into each channel.

The hyper-threading feature is designed to improve performance of multi-threaded software products; please contact your software provider to determine software compatibility. Not all customers or software applications will benefit from the use of hyperthreading. Go to intel.com/info/hyperthreading for more information, including which processors support HT Technology.

Intel' Xeon E3 and Intel Pentium processors can support either ECC or non-ECC memory. Intel Core is 1/315/17 processors only support non-ECC memory.

SATA hardware RAID is not supported on Linux systems. The Linux kernet, with built-in software RAID, provides excellent functionality and performance. It is a good alternative to hardware-based RAID.

Please visit h20000.www2.hp.com/bc/docs/support/SupportManual/c00060684/c00060684.pdf for RAID capabilities with Linux.

Freday visit incoordings. The attribution bytes. TB = 1 trillion bytes. TB = 1 trillion bytes. Actual formatted capacity is less.

Actual speeds may vary. Does not permit copying of commercially available DVD movies or other copyright protected materials. Intended for creation and storage of your original material and other lawful uses.

Note that DVD-RAM cannot read or write to 2.6 GB Single Sided/5.2 GB Double Sided – Version 1.0 media.

As Blu-ray is a new format containing new technologies, certain disc, digital connection, compatibility and/or performance issues may arise, and do not constitute defects in the product. Flawless playback on all

systems is not guaranteed. In order for some Blu-ray titles to play, they may require a DVI or HDMI digital connection and your display may require HDCP support. HD DVD movies cannot be played on this workstation. AMD graphics are not supported when there is greater than 32 GB of system memory present.

HP Care Pack Services extend service contracts beyond the standard warranties. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at hp.com/go/carepack. Service levels and response times for HP Care Packs may vary depending on your geographic location.

Learn more

hp.com/go/z220

© 2012 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel, Xeon, Core and vPro are trademarks of Intel Corporation in the U.S. and other countries. Windows is a U.S. registered trademark of Microsoft Corporation. AMD is a trademark of Advanced Micro Devices. Inc.

